

DIPHYLLOSTOMA: A THIRD SPECIES

(Coleoptera)

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The observations of Mr. Hinton and Dr. Van Dyke (Pan-Pac. Ent., VII, 1930, p. 95), followed by Mr. E. Gorton Linsley's paper in the January 1932 issue of the same magazine, show that specimens of this interesting genus have recently been taken in numbers by several collectors.

Mr. Linsley's article is notable in that it records the first capture of the female, a desideratum of thirty years' standing. As I had anticipated, it proves to be apterous, and exhibits such differences from the male as the heavier body not entirely covered by the elytra, smaller eyes and shorter legs, more or less characteristic of wingless females in a number of other genera of coleoptera. It does not yet appear whether the female is strictly epigeal nor is anything yet known as to the feeding habits of either sex, if indeed they take food in the imago state; an interesting problem for the field naturalist.

Mr. Linsley gives the following table, based on male characters, for the separation of the "two known species."

Mandibles strongly emarginate at tip; suborbital plates prominent; unicolorous, dark brown; 6 to 8 mm. Tulare County, California	<i>fimbriata</i> (Fall)
Mandibles evenly rounded; suborbital plate inconspicuous; bicolored, prothorax piceous, elytra brownish; 5 to 9 mm. Middle Sierra Nevada Mountains, California	<i>nigricollis</i> Fall

It is clear that the diagnostic characters of the *nigricollis* of the above scheme were drawn from his Riverton specimens, which not unnaturally were assumed to be that species, the resemblance being exceedingly close. My suspicions as to the correctness of this reference were first aroused by the statement that the mandibular process is evenly rounded. This I find to be uniformly true in a considerable series of the Riverton species kindly sent me by Linsley, but it is not true of any example of the type series of *nigricollis* in all of which the mandibles are emarginate, though less deeply so than in *fimbriata*. Moreover what Linsley calls the suborbital plates, and which I re-

ferred to as the tempora in my original description of *fimbriata*, are present, though very small, in *nigricollis*, while they are as a rule almost wholly obsolete in the Riverton examples. The locality—"Middle Sierras"—also applies to Riverton (El Dorado County) but not to Fresno and Tulare counties, some one hundred fifty to two hundred miles farther south, the known habitat of *nigricollis*. In this connection it need hardly be said that a much less distance may be amply sufficient for the complete isolation of two allied species provided the females are apterous, as is well illustrated in the genus *Pleocoma*.

A further study of the genitalia of *nigricollis* and the Riverton form demonstrates the significance of the small external differences noted and shows conclusively that we have to do with two distinct species. The following diagrammatic sketches show with sufficient accuracy the genital differences in our three species. The lateral lobes, especially, are more or less warped in all the species and cannot be adequately shown in a single outline drawing, but for comparative purposes all have been made as nearly as possible from the same lateral viewpoint.



Right (R), middle (M), and left (L) lobes of the male genitalia of *Diphyllostoma fimbriata*, *D. nigricollis* and *D. linsleyi* n. sp., as viewed horizontally from the left side.

Diphyllostoma linsleyi Fall, n. sp.

Nearly identical in size and general aspect with *nigricollis*. As in the latter the head and prothorax are black or piceous, the elytra brownish, the prothorax finely punctate, the hind tarsi a little longer, slightly more slender and with perceptibly larger claws than in *fimbriata*. It differs from both *nigricollis* and *fimbriata* in having the mandibular process evenly rounded in front and in the nearly or quite obsolete postocular tempora, and also in the form of the male genitalia (see figures).

Described from a good series of specimens, all males, taken at Riverton, El Dorado County, California, by Mr. E. Gorton Linsley of Oakland, California, to whom the species is dedicated in recognition of his contribution to our knowledge of this remarkable genus. The type is in my own collection and bears date July 5, 1931.

According to Linsley the differences between *fimbriata* and *nigricollis* in surface sculpture and in the length of the tarsi noted in my original description of the latter disappear in a series. Although his statement is somewhat weakened from the fact that he made it with *linsleyi* rather than *nigricollis* in hand, still these two species are so nearly identical in these respects that it should apply about equally well to *nigricollis*. The differences in sculpture were so small that I can readily believe they might not hold in a large series. As to the tarsal character I can only say that I have yet to see an example of either *nigricollis* or *linsleyi* in which the hind tarsi are not perceptibly longer than in *fimbriata*, so that I can hardly doubt that this difference will prove quite characteristic when series are taken as a whole.

THE VESPULA MARGINATA OF KIRBY

In Dr. J. Bequaert's excellent revision of the American Vespinae, he describes *Vespula norwegica* var. *marginata* (Kirby), based on *Vespula marginata* Kirby, 1837. This is a wasp of the Hudsonian Zone from Alaska to Labrador. Unfortunately the name is preoccupied by *Vespa marginata* Gmelin, 1790. This leaves us apparently with the disagreeable necessity of calling our wasp *Vespula norwegica peruana* (H. de Saussure, 1868). This was described from "Quito, Peru." Now, Quito is not in Peru but in Ecuador; and, as Dr. Bequaert remarks, there must apparently have been a mistake in labeling. I say "apparently," because I noticed when in Peru that much Oregon lumber was imported into that country, and it is not impossible that a *Vespula* might appear in South America, having emerged from some hole in the lumber in which it had taken refuge.—T. D. A. Cockerell.